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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,111	06/30/2005	Stefan Bruening	C 2347 PCT/US	6131

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EXAMINER	
CORNO JR, JAMES A	
ART UNIT	PAPER NUMBER
4162	
MAIL DATE	DELIVERY MODE
10/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,111	BRUENING ET AL.	
	Examiner	Art Unit	
	JAMES CORNO	4162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 24-26, 28-35, 36-38, and 40-43 have been considered but are moot in view of the new ground(s) of rejection. The references used for the original rejection have been reinterpreted in light of a rereading of the applicant's specification. Isopropyl palmitate, which was referred to in the previous action as a fatty alcohol, is now recognized as a dialkylene ether. Based on this reinterpretation, the references used in the original rejection still read on the claims, and a modified rejection is made below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 24-26 and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. Patent No. 6,953,500) in view of Kainz (U.S. Patent No. 5,743,949). Lewis teaches a water-based wax emulsion in which the wax may comprise a dialkylene ether such as isopropyl palmitate (Table 1). Lewis also teaches the use of an emulsifier (claim 1). Lewis fails to teach the size limitation of the first line of claim 24. However, Kainz teaches that the ideal size of wax particles for maximum stability in such a dispersion is 1-40 μm (col. 2, lines 27-38), with a specific example of 8 μm (col. 7, lines 21-27). It would have been obvious to one of ordinary

skill in the art at the time of the invention to incorporate such a size limitation to improve the stability of Lewis' dispersion.

Claims 36-38 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Kainz. Lewis teaches a water-based wax dispersion comprising

1) 0.5-4% of isopropyl palmitate (claim 5), which is a C_{19} dialkylene ether,

2) less than 10% of polydimethylsiloxane (claim 6), which is a silicone oil,

3) 2-9% of stearyl alcohol (claim 2), which is a nonionic emulsifier, and

4) 8-12.5% of a wax.

Lewis fails to teach the size limitation of the first line of claim 36. However, Kainz teaches that the ideal size of montan waxes and fatty alcohol waxes for maximum stability in such a dispersion is 1-40 μm (col. 2, lines 27-38), with a specific example of 8 μm (col. 7, lines 21-27). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate such a size limitation to improve the stability of Lewis' dispersion.

The C_{14-30} dialkylene ether has been taken here to mean a dialkylene ether with a total of 14-30 carbon atoms. If the intended meaning of this limitation was that each individual alkyl chain should have 14-30 carbon atoms, it should be noted that Lewis teaches that the main waxy component may include spermaceti (col. 7, line 64). Cetyl palmitate, the primary component of spermaceti, would be a C_{16} dialkylene ether by that definition.

Regarding claim 25, the ranges are anticipated by claim 1 of Lewis, which specifies a wax phase of 10.5-30% and a water phase of 70-82%

Regarding claim 26, claim 2 of Lewis specifies the use of stearyl or cetyl alcohol, which are nonionic emulsifiers.

Regarding claims 28 and 40, the claimed range is anticipated by Kainz. Kainz teaches the use of 8 μm wax particles, which falls within the claimed range of 5-50 μm.

Regarding claims 29 and 41, Lewis teaches the use of Koster Keunen carnuba wax, which includes no appreciable quantity of water.

Regarding claims 30 and 31, Lewis teaches that the additional wax phase additive may include hydrogenated castor oil (col. 7, line 64), which consists of tri-esters of glycerol.

Regarding claims 32- 33 and 37-38, Lewis teaches the addition of a polymer, including polysaccharides, with specific examples of cellulose derivatives and starch ethers (col. 8, lines 25-34).

Regarding claims 34 and 42, Lewis teaches the addition of a fragrance to enhance certain properties of the dispersion (col. 5, lines 25-29).

Regarding claims 35 and 43, Lewis teaches the use of castor oil wax (col. 7, line 64), which may act as a humectant.

Claims 27 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Kainz as applied to claims 24 and 36 above, respectively, and further in view of Warner, et al. (U.S. Patent No. 5,525,345). Lewis and Kainz teach the wax dispersion of claims 24 and 36, but they fail to teach the 35 to 50°C melting temperature range of claim 27 and 39. However, Warner, et al., teaches a wax emollient for tissue paper with a melting temperature of 40 to 50°C for the purpose of maintaining the wax in solid form at ambient temperature, thereby preventing it from soaking into the tissue. When using the dispersions of Lewis and Kainz for

cosmetic applications, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this improvement.

Claims 44-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Kainz as applied to claim 24 above, and further in view of Bücheler, et al. (U.S. Patent No. 4,996,004). Lewis and Kainz teach the claimed dispersion, including the use of a polymer, but they fail to teach the claimed production method. However, Bücheler, et al., teaches a preparation method for stable cosmetic dispersions of organic substances in water with fine particle size control. This preparation method consists of (1) creating a preliminary emulsion of melted wax and water and (2) spraying this preliminary emulsion into a cooling tank filled with water below the melting point of the solid (col. 5, lines 42-58). As the claimed invention requires a stable colloid with controlled particle size for cosmetic applications, the use of the method of Bücheler, would have been obvious to one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Bücheler to make the dispersion of Lewis usable as a stable cosmetic dispersion with fine particle control.

Regarding claim 45, Bücheler, et al., teaches a homogenization step for the pre-emulsion prior to introduction to the cooling tank (col. 3, lines 56-68).

Regarding claim 46, Bücheler, et al., teaches a cooling step for the pre-emulsion before adding it to the cooling tank (col. 6, lines 7-11).

Regarding claim 47-48, Bücheler, et al., teaches the addition of the desired emulsifier to the pre-emulsion before addition to the cooling tank (col. 5, lines 42-58). Lewis teaches the use of a polysaccharide as the emulsifier (col. 8, lines 25-34).

Regarding claim 49, Bücheler, et al., teaches the use of a pressure nozzle for homogenization (col. 2, lines 3-12).

Regarding claim 50, the claimed ranges are anticipated by Lewis.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES CORNO whose telephone number is (571)270-5829. The examiner can normally be reached on Monday-Thursday 9:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES CORNO/
Examiner, Art Unit 4162

/Jennifer McNeil/
Supervisory Patent Examiner, Art Unit 4162